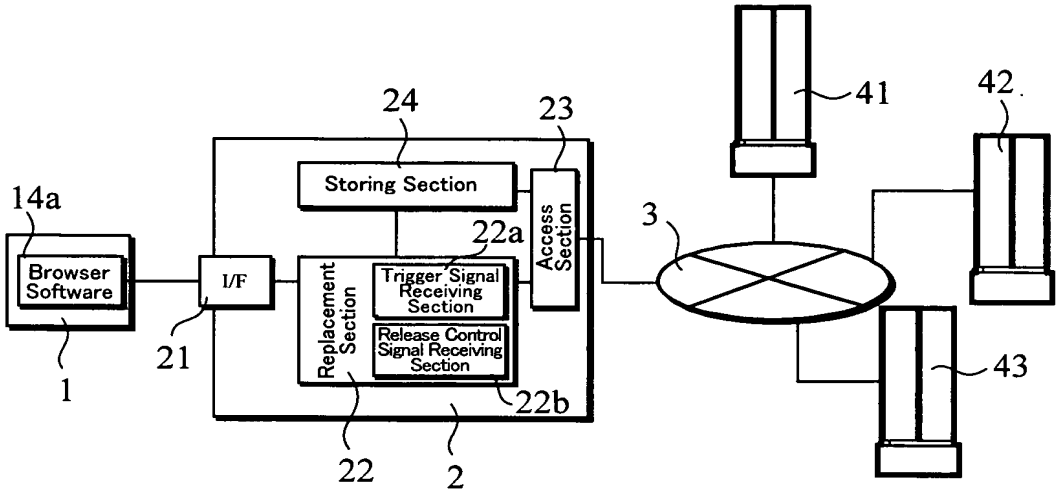
FIG.1

(a)


14a
Browser Software
1
I/F
21
24
Storing Section
23
Access Section
22a
Replacement Section
Trigger Signal Receiving Section
Release Control Signal Receiving Section
22b
22
2
3
41
42
43

(b)

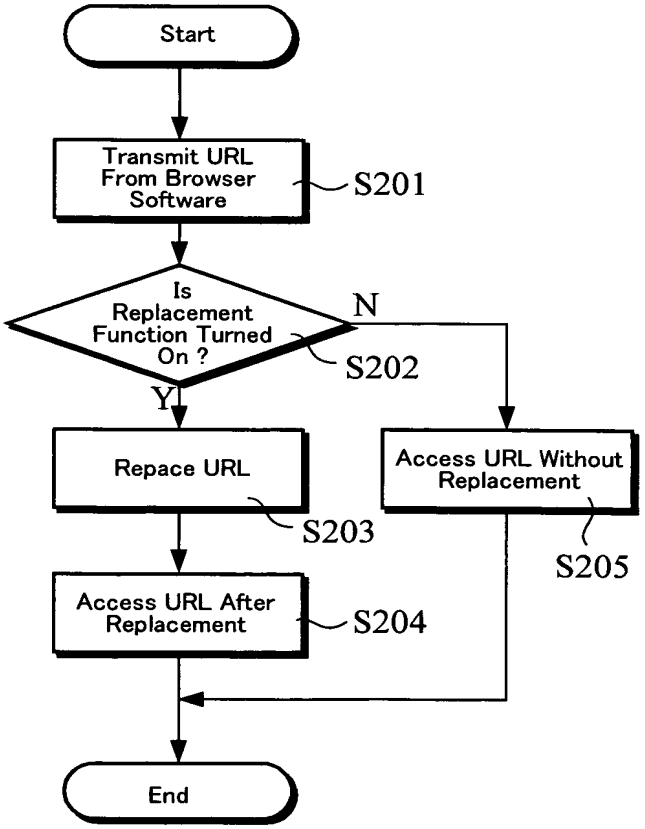

Start
Transmit URL From Browser Software
S201
Is Replacement Function Turned On ?
S202
N
Y
Repace URL
S203
Access URL After Replacement
S204
Access URL Without Replacement
S205
End

FIG.2

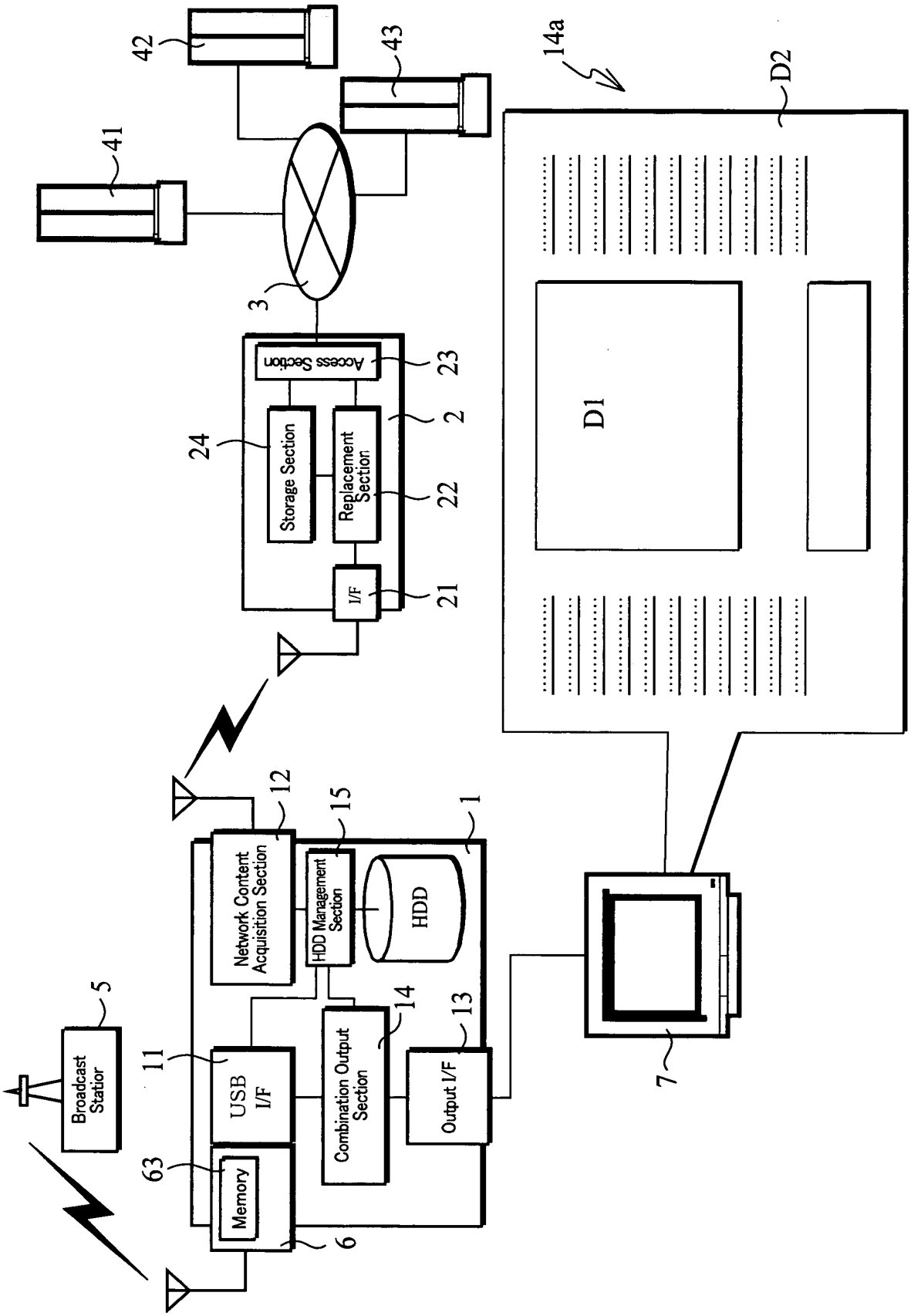

42
43
41
3
14a
D2
D1
Access Section
23
24
Storage Section
Replacement Section
2
22
I/F
21
12
15
1
Network Content Acquisition Section
HDD Management Section
HDD
5
Broadcast Statior
11
USB I/F
14
Combination Output Section
13
Output I/F
63
Memory
6
7

FIG.3

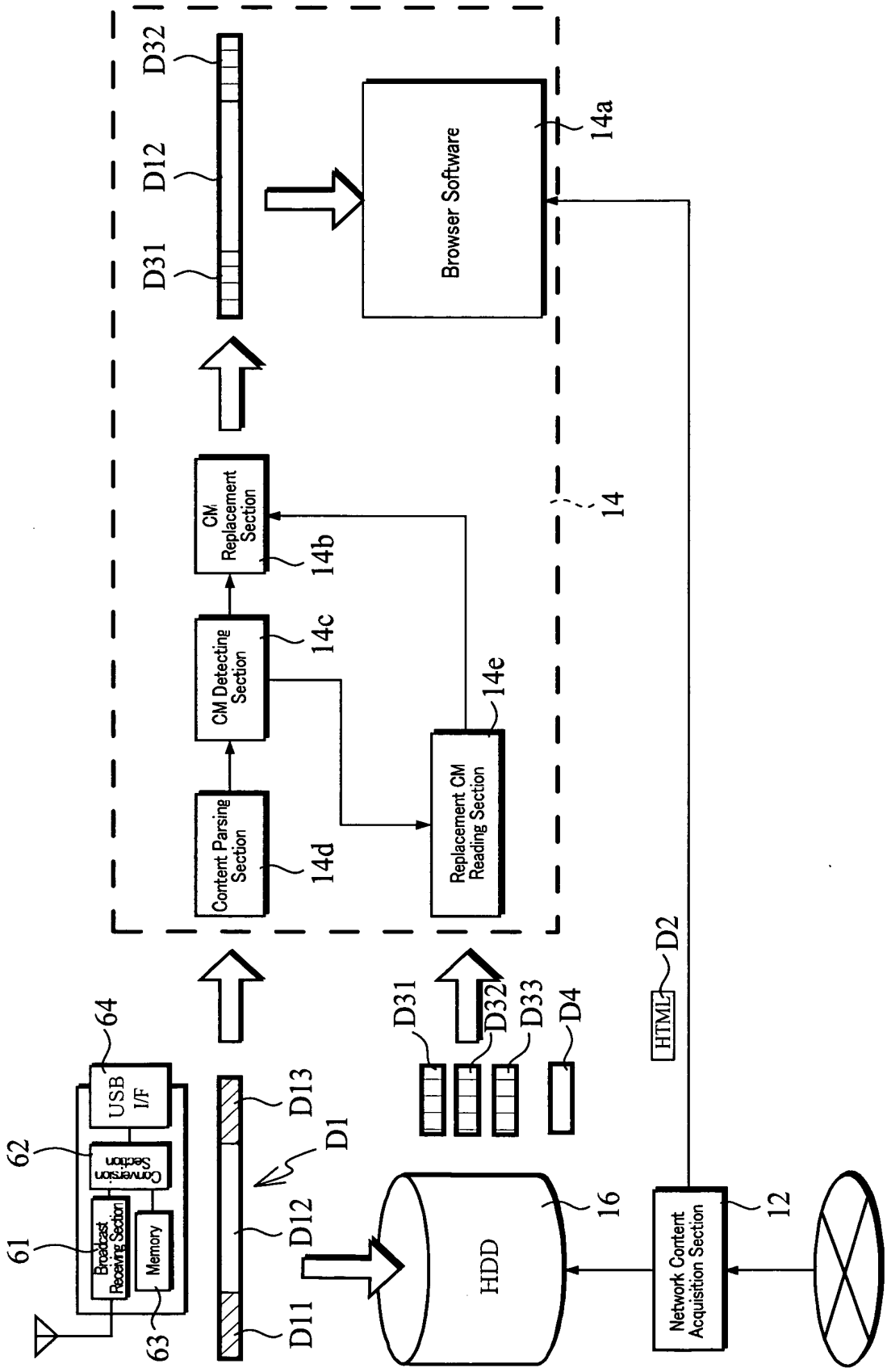
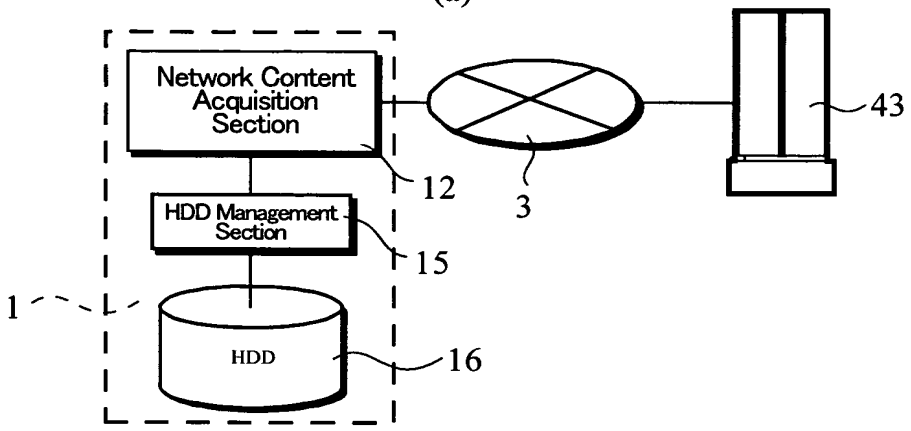
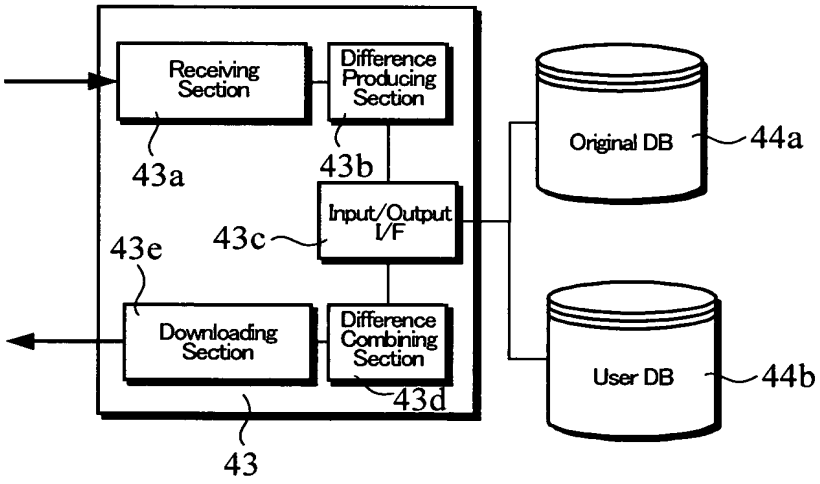

D32
D12
D31
Browser Software
14a
CM Replacement Section
14b
CM Detecting Section
14c
Content Parsing Section
14d
Replacement CM Reading Section
14e
14
64
USB I/F
62
Conversion Section
61
Broadcast Receiving Section
Memory
63
D13
D1
D12
D11
D31
D32
D33
D4
HTML
D2
HDD
16
Network Content Acquisition Section
12

FIG.4

(a)


Network Content Acquisition Section
12
3
43
HDD Management Section
15
1
HDD
16

(b)


Receiving Section
Difference Producing Section
43a
43b
Original DB
44a
Input/Output I/F
43c
43e
Downloading Section
Difference Combining Section
43d
User DB
44b
43

(c)

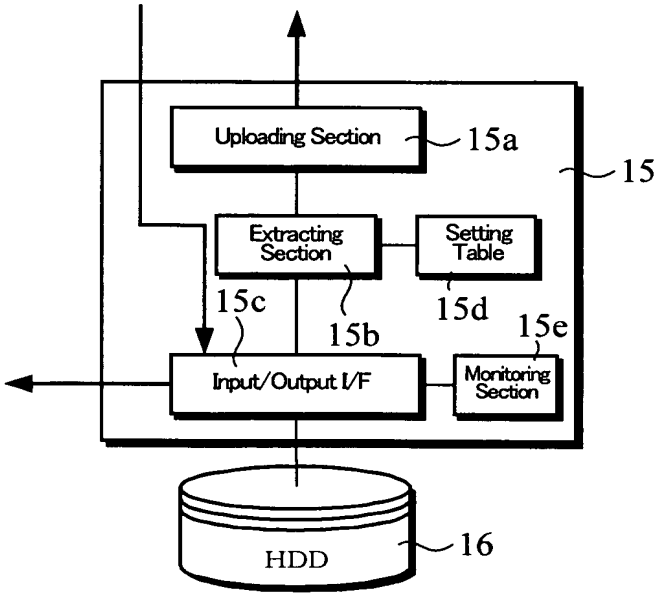

Uploading Section
15a
15
Extracting Section
Setting Table
15c
15b
15d
15e
Input/Output I/F
Monitoring Section
HDD
16

FIG.5

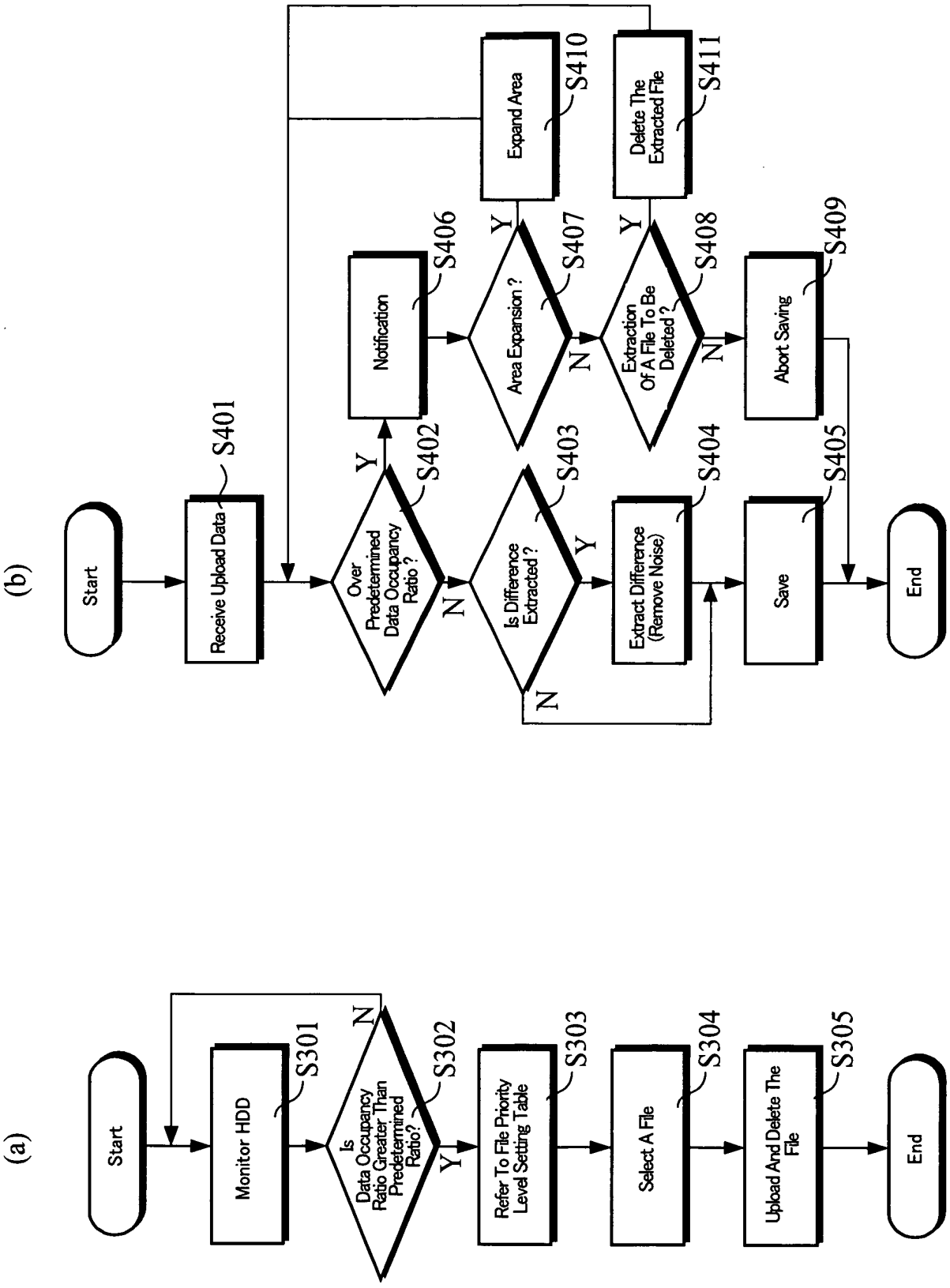

(a)
Start
Monitor HDD
S301
Is Data Occupancy Ratio Greater Than Predetermined Ratio?
S302
N
Y
Refer To File Priority Level Setting Table
S303
Select A File
S304
Upload And Delete The File
S305
End
(b)
Start
Receive Upload Data
S401
Over Predetermined Data Occupancy Ratio ?
S402
Y
N
Notification
S406
Is Difference Extracted ?
S403
Y
N
Area Expansion ?
S407
Y
N
Expand Area
S410
Extract Difference (Remove Noise)
S404
Extraction Of A File To Be Deleted ?
S408
Y
N
Delete The Extracted File
S411
Save
S405
Abort Saving
S409
End

FIG.6

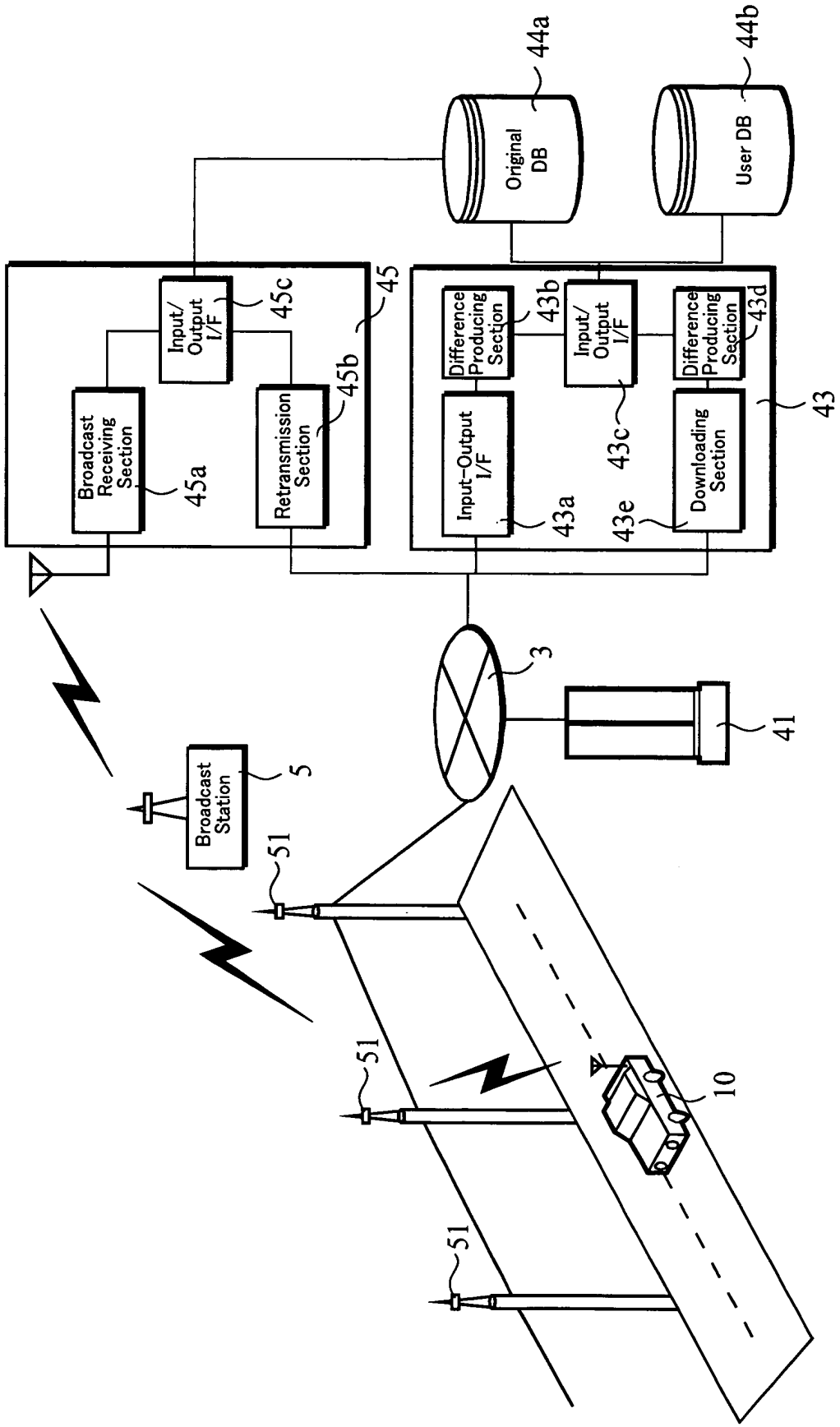

44a
Original DB
44b
User DB
45
Input/ Output I/F
45c
Broadcast Receiving Section
45a
Retransmission Section
45b
Difference Producing Section
43b
Input/ Output I/F
Difference Producing Section
43d
Input-Output I/F
43a
43c
Downloading Section
43e
43
3
41
Broadcast Station
5
51
51
51
10

FIG.7

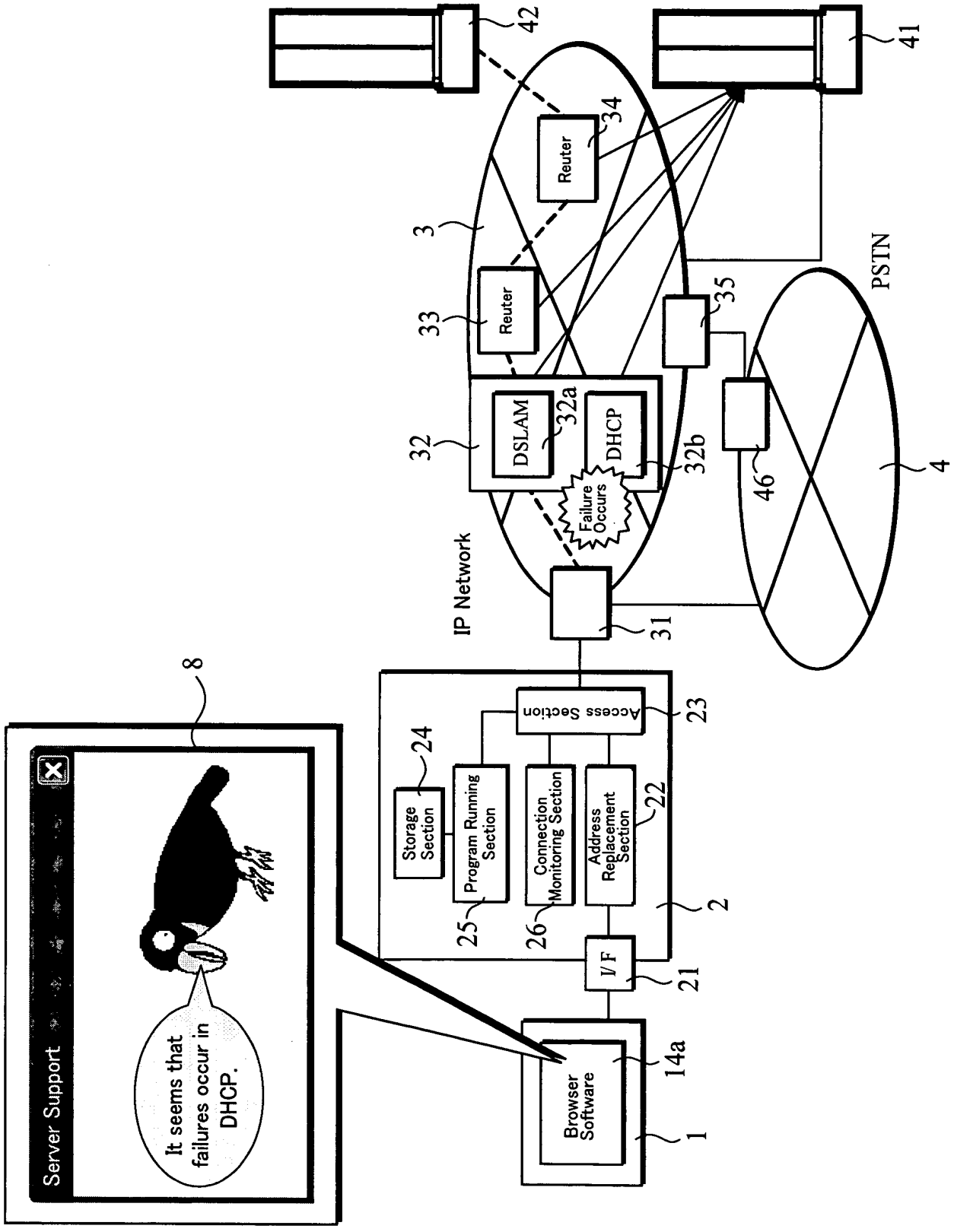

Server Support
It seems that failures occur in DHCP.
8
Browser Software
14a
1
I/F
21
Storage Section
24
Program Running Section
25
Connection Monitoring Section
26
Address Replacement Section
22
Access Section
23
2
31
IP Network
DSLAM
32a
DHCP
32b
32
Failure Occurs
Reuter
33
Reuter
34
3
35
46
PSTN
4
42
41

FIG.8

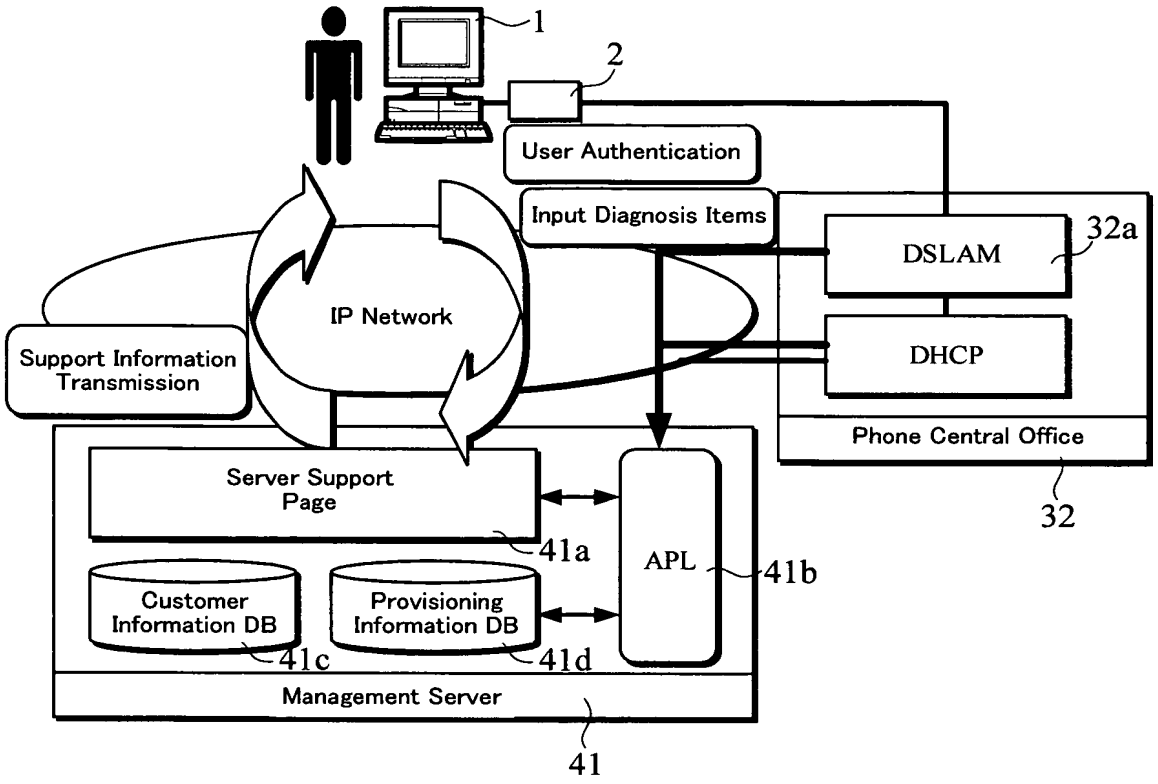

1
2
User Authentication
Input Diagnosis Items
DSLAM
32a
DHCP
IP Network
Support Information Transmission
Phone Central Office
32
Server Support Page
41a
APL
41b
Customer Information DB
41c
Provisioning Information DB
41d
Management Server
41

FIG.9

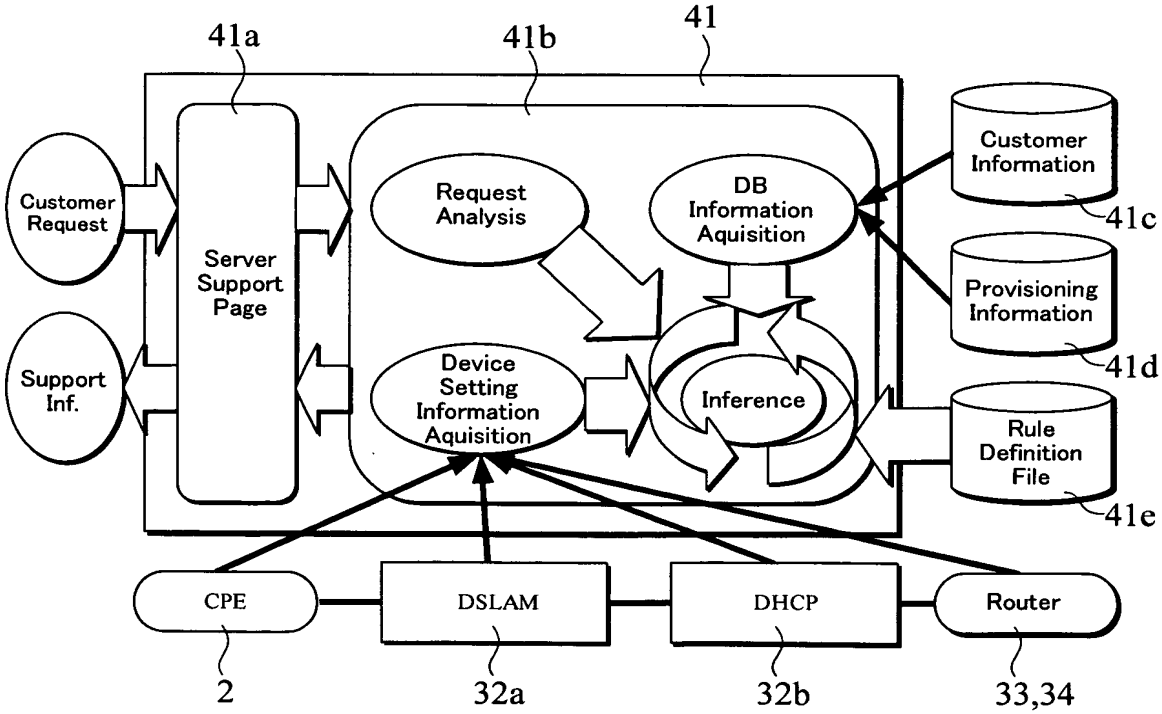

41a
41b
41
Customer Request
Support Inf.
Server Support Page
Request Analysis
DB Information Aquisition
Device Setting Information Aquisition
Inference
Customer Information
41c
Provisioning Information
41d
Rule Definition File
41e
CPE
DSLAM
DHCP
Router
2
32a
32b
33,34

FIG.10

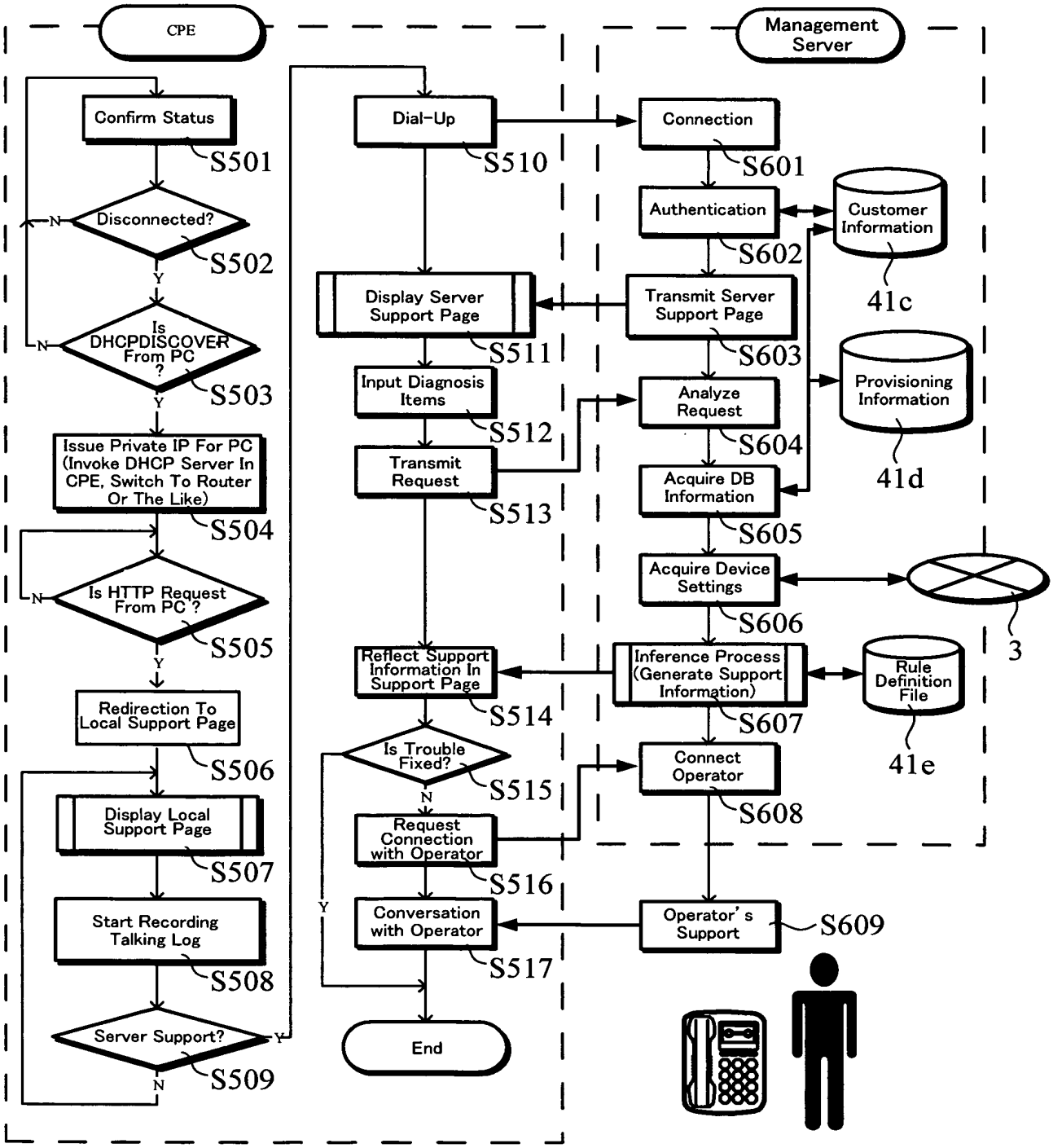

CPE
Management Server
Confirm Status
S501
Disconnected?
S502
N
Y
Is DHCPDISCOVER From PC ?
S503
Issue Private IP For PC (Invoke DHCP Server In CPE, Switch To Router Or The Like)
S504
Is HTTP Request From PC ?
S505
Redirection To Local Support Page
S506
Display Local Support Page
S507
Start Recording Talking Log
S508
Server Support?
S509
Dial-Up
S510
Display Server Support Page
S511
Input Diagnosis Items
S512
Transmit Request
S513
Reflect Support Information In Support Page
S514
Is Trouble Fixed?
S515
Request Connection with Operator
S516
Conversation with Operator
S517
End
Connection
S601
Authentication
S602
Transmit Server Support Page
S603
Analyze Request
S604
Acquire DB Information
S605
Acquire Device Settings
S606
Inference Process (Generate Support Information)
S607
Connect Operator
S608
Operator's Support
S609
Customer Information
41c
Provisioning Information
41d
Rule Definition File
41e
3

FIG.11

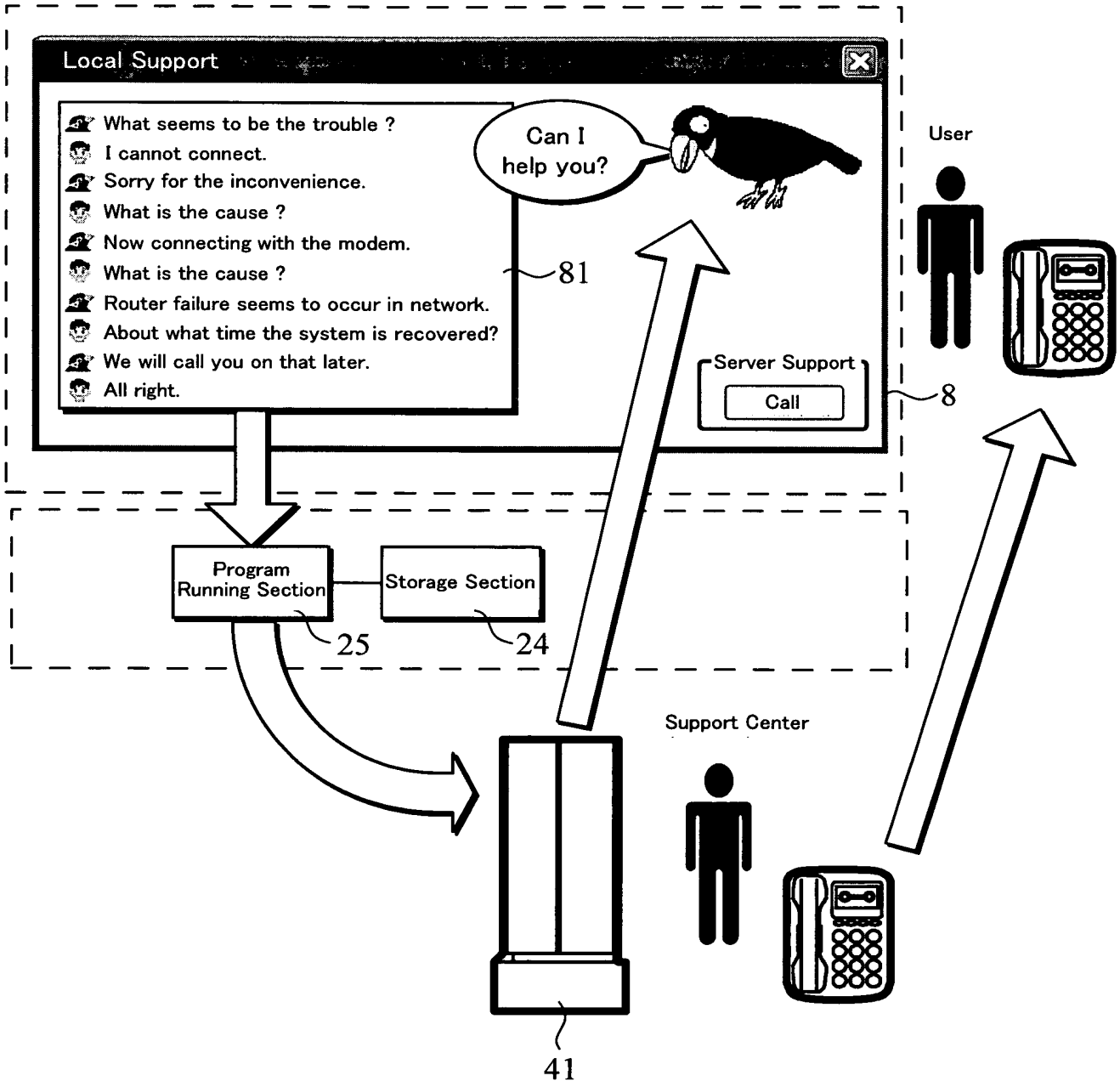

Local Support
What seems to be the trouble ?
I cannot connect.
Sorry for the inconvenience.
What is the cause ?
Now connecting with the modem.
What is the cause ?
Router failure seems to occur in network.
About what time the system is recovered?
We will call you on that later.
All right.
Can I help you?
81
User
Server Support
Call
8
Program Running Section
Storage Section
25
24
Support Center
41

FIG.12

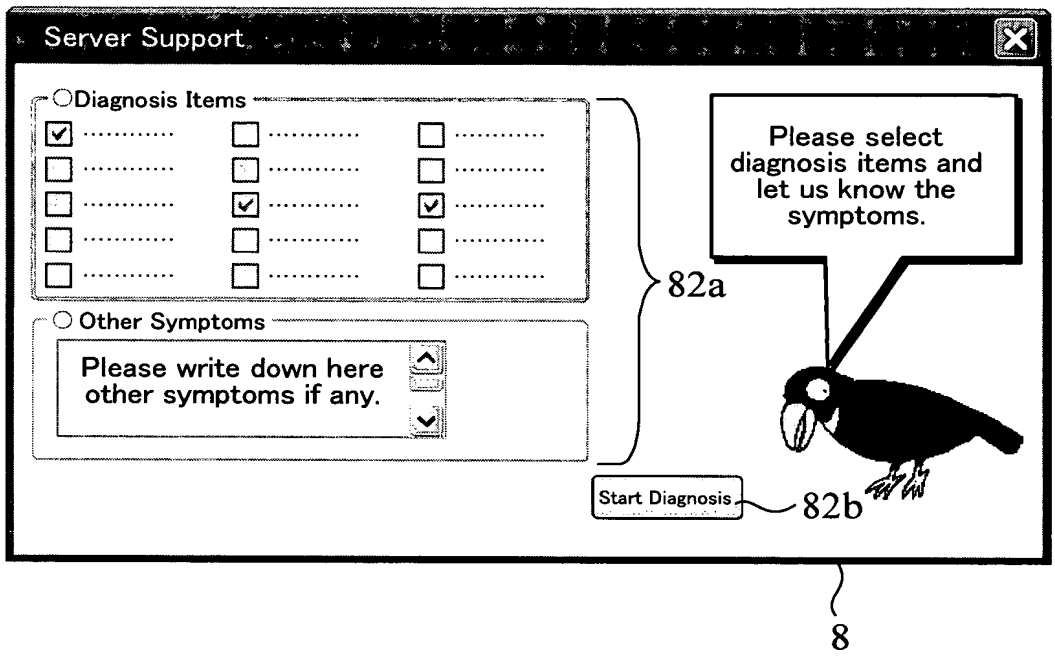
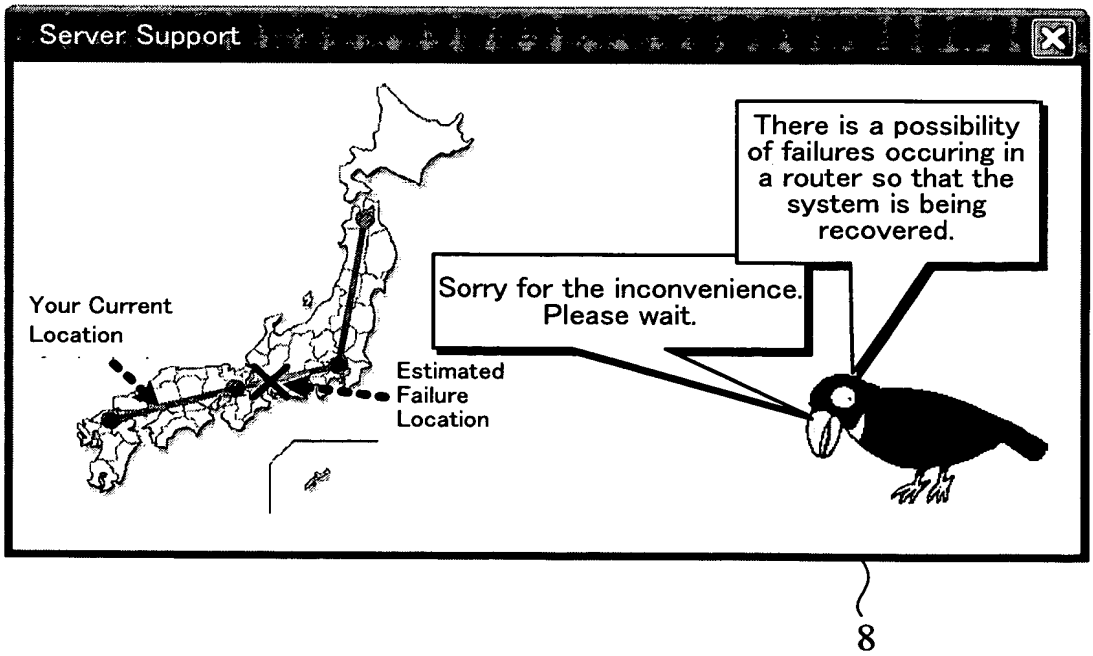

Server Support
Diagnosis Items
Other Symptoms
Please write down here other symptoms if any.
Please select diagnosis items and let us know the symptoms.
82a
Start Diagnosis
82b
8

FIG.13


Server Support
Your Current Location
Estimated Failure Location
There is a possibility of failures occuring in a router so that the system is being recovered.
Sorry for the inconvenience. Please wait.
8